

# Latex

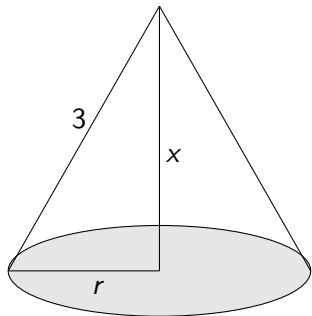
## Describe Document !

March 15, 2019

Question : The slant height of a right circular cone is 3 cm. Find the height of cone, if its volume is the greatest.

Solution : Let  $r$  and  $x$  be the base-radius and the height of the cone respectively. Then the volume  $f(x)$  of the cone is given by

$$\begin{aligned} f(x) &= \frac{1}{3}\pi r^2 x \\ &= \frac{\pi}{3}(3^2 - x^2)x \\ &= \frac{\pi}{3}(9x - x^3) \\ \therefore f'(x) &= \frac{\pi}{3}(9 - 3x^2) \end{aligned}$$



Now  $f'(x) = 0$  gives

Also  $f''(x) = -6x$



$$x^2 + y^2 = z^2$$

$$\int$$

1  $x^2 + y^2 = z^2$

2  $\int$

# Latex is a Markup Language, like HTML

- First item
- Second.
- Third.

```
1 \begin{itemize}
2   \item First item
3   \item Second.
4   \item Third.
5 \end{itemize}
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